

Air BUS

Ship JAN 27

Work Order ID 153709

153709

Page 1

Thursday, November 24, 2016 3:36:02 PM

Item ID: D350-591-312

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Heli-Access-Step™ RH - High Gear, Long Step, Aerazur Float Compatible

Start Date: 1/2/2017 Start Qty: 10.00

10

Cust Item ID:

Required Date: 1/12/2017 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals:

Process Plan: MA

Date: 16-11-24

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D3272

Rev B

DAS
6
JAN 13 2017DAS
21
9-89
17-01-13
10

100

Document Control

0.00

1000

DC

DOCUMENT CONTROL

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile and type labels as per PPP D350-591-312 CHG001

10 DAS
28
9-89

JAN 27 2017

110

Large Fab

0.00

110

Large Fab

Memo

0.67

Large Fab

1-Bevel end for welding FWD ONLY

2-Weld Support using Jig DT10115, weld Fwd End Plate as per QSI 004 & Dwg D3272

A/R Aluminum Rod 134826

3-Grind End Plate flush

16-12-15

DEC 15 2016

DAS
24
9-89

B153709 (X10R+1)

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

Work Order ID 153709***153709***

Page 2

Thursday, November 24, 2016 3:36:02 PM

Item ID: D350-591-312**Accept*****N900040100*****Setup Start*****NS1*****Revision ID:****Stop*****NS2*****Item Name:** Heli-Access-Step™ RH - High Gear, Long Step, Aerazur Float Compatible**Start Date:** 1/2/2017 **Start Qty:** 10.00***10*****Cust Item ID:****Required Date:** 1/12/2017 **Req'd Qty:** 10.00***10*****Customer:****Reference:****Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____**Run Start*****NR1*****QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____**Stop*****NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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120

QC9- Inspect visual per QSI004- Fusion Welds

0.00

120

QC

Memo

0.00

Quality Control

(10) 16-12-16
DAS 9 9-89

130

QC5- Inspect part completeness to step on W/O

0.00

130

QC

Memo

0.03

Quality Control

(10) 16-12-16
DAS 9 9-89

140

Chemical Conversion Coat per QSI005 4.1

0.00

140

HandFinish

Memo

0.68

Hand Finishing

(X10) 2016/12/20
BER

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Work Order ID 153709

Thursday, November 24, 2016 3:36:02 PM

153709

Page 3

Item ID: D350-591-312

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Heli-Access-Step™ RH - High Gear, Long Step, Aerazur Float Compatible

Start Date: 1/2/2017 Start Qty: 10.00

10

Cust Item ID:

Required Date: 1/12/2017 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

NR1

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC7-Inspect Chemical Conversion Coat	0.00							
150						10		DEC 21 2016	CPC
QC	Memo	0.02							
Quality Control									
180		0.00							
180	Large Fab					10		DEC 21 2016	CPC
Large Fab	Memo	0.67							
Large Fab	1-Assemble Leg Assembly as per Dwg D3272.								
	2-Leave one rivet out until welding is complete.								
	3-Bevel Aft end for welding								
	4-Inspect for foreign object as per QSI 024								
	5-Weld Aft End Plate as per QSI 004 & Dwg D3272 A/RAluminum Rod <u>134826</u>								
	6-Grind End Plate flush								
	7-Install last rivet as per Dwg.								

DEC 23 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

153709

Thursday, November 24, 2016 3:36:02 PM

N900040100

Setup Start *NS1*

Stop ***NS2***

Stop ***NS2***

10

10

Run Start *NR1*

Stop ***NDQ***

Stop ***NDQ***

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY							
Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process	OTHER :							
Misidentified ☐	☐	Past Due								

Work Order ID 153709

Thursday, November 24, 2016 3:36:02 PM

153709

Page 5

Item ID: D350-591-312**Accept*****N900040100*****Setup Start*****NS1*****Revision ID:****Stop*****NS2*****Item Name:** Heli-Access-Step™ RH - High Gear, Long Step, Aerazur Float Compatible**Start Date:** 1/2/2017 **Start Qty:** 10.00***10*****Cust Item ID:****Required Date:** 1/12/2017 **Req'd Qty:** 10.00***10*****Customer:****Reference:****Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____**Run Start*****NR1*****QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____**Stop*****NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
220	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00							
220									
Powdercoat	Memo	0.35							
Powder Coating	START TIME: <u>2:00 pm</u>								
	OVEN TEMPERATURE: <u>320°F</u>								
	FINISH TIME: <u>2:30 pm</u>								
230	Wing Walk as per dwg QSI005 4.4 Batch	0.00							
230									
HandFinish	Memo	0.37							
Hand Finishing									
240	QC3- Inspect Part Finish	0.00							
240									
QC	Memo	0.02							
Quality Control									

X16 RH d All 17/01/06

X103 H d All 17/01/06

10 _____ _____ _____
DAS
38
9-89
JAN 11 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Work Order ID 153709***153709***

Page 6

Thursday, November 24, 2016 3:36:02 PM

Item ID: D350-591-312**Accept*****N900040100*****Setup Start*****NS1*****Revision ID:****Stop*****NS2*****Item Name:** Heli-Access-Step™ RH - High Gear, Long Step, Aerazur Float Compatible**Start Date:** 1/2/2017 **Start Qty:** 10.00***10*****Cust Item ID:****Required Date:** 1/12/2017 **Req'd Qty:** 10.00***10*****Customer:****Reference:****Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____**Run Start*****NR1*****QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____**Stop*****NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
250	Pick Kit	0.00							
250									
Packaging	Memo	0.02			10	DAS 6 9-89			DAS 27 9-89
Packaging								JAN 17 2017	
260	QC4- 100% Inspect kits for completeness	0.00							
260									
QC	Memo	0.05				10	DAS 28 9-89		JAN 27 2017
Quality Control									
270	Packaging	0.00							
270									
Packaging	Memo	0.00				10X	DAS 28 9-89		
Packaging	Identify and pack for shipping as per PPPD350-591-312 Location :FG072								JAN 23 2017

sold

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Description Work Order Deviation		Disposition			
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : _____			

Work Order ID 153709***153709***

Page 7

Thursday, November 24, 2016 3:36:02 PM

Item ID: D350-591-312 **Accept** ***N900040100*** **Setup** **Start** ***NS1***
Revision ID: **Stop** ***NS2***
Item Name: Heli-Access-Step™ RH - High Gear, Long Step, Aerazur Float Compatible
Start Date: 1/2/2017 **Start Qty:** 10.00 ***10*** **Cust Item ID:**
Required Date: 1/12/2017 **Req'd Qty:** 10.00 ***10*** **Customer:**
Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run** **Start** ***NR1***
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop** ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
280	QC21- Final Inspection - Work Order Release	0.00							
280									
QC	Memo	0.17							
Quality Control									

DAS
21
9-89

JAN 24 2017

JAN 24 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Picklist Print

Thursday, November 24, 2016 3:36:07 PM

Page 1

Work Order ID: 153709

153709

Parent Item: D350-591-312

D350-591-312

Parent Item Name: Heli-Access-Step™ RH - High Gear, Long Step, Aerazur Float Compatible

Start Date: 1/2/2017

Required Date: 1/12/2017

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP Rev:A04.03.22New issue KJ/RF
 IPP Rev:B 07-06-09 Added D3572-1 JLM
 IPP Rev:C 08-04-02 ECN1163 DD verified by:EC
 IPP Rev:D 08-04-08 ECN1164 DD verified by:eC IPP Rev:D
 fixe route seq in bom DD 10.04.28 verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
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AN3-35A		Purchased	No			250	Each	174.0000	2	20			
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AN3-35A

Bolt

DAS
28
9-89

Location	Loc Qty	Loc Code
FG	10	
122800	10	
over003	100	
m136192	100	
ST348	64	
m135464	4	
m135767	60	

**

JAN 17 2017
DAS 6 27 9-89

AN4-13A		Purchased	No			250	Each	679.0000	8	80			
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AN4-13A

Bolt

DAS
28
9-89

Location	Loc Qty	Loc Code
FG	20	
122808	20	
GA	76	
m134634	19	
m135470	57	
over003	400	
m136147	400	
ST343	183	
m135966	183	

**

23 X 136406

JAN 17 2017
DAS 6 27 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Thursday, November 24, 2016 3:36:07 PM

Work Order ID: 153709

153709

Parent Item: D350-591-312

D350-591-312

Parent Item Name: Heli-Access-Step™ RH - High Gear, Long Step, Aerazur Float Compatible

Start Date: 1/2/2017

Required Date: 1/12/2017

Start Qty: 10.00

Required Qty: 10.00

AN5-36A Purchased No 250 Each 170.0000 2 20

AN5-36A

Bolt

**

DAS
6
9-89

JAN 17 2017
DAS
27
9-89

Location Loc Qty Loc Code

over004 100

M136150 100

ST336 70

M135774 70

20

D2230-3 Manufactured No 250 Each 360.0000 4 40

D2230-3

Mounting Lug

**

DAS
6
9-89

JAN 17 2017
DAS
27
9-89

Location Loc Qty Loc Code

FG 6

109344 4

89045 2

ST521 354

148845 21

149711 173

151426 80

152183 80

12

20

D2618 Manufactured No 250 Each 76.0000 2 20

D2618

Bushing

**

DAS
6
9-89

JAN 17 2017

Location Loc Qty Loc Code

ST008A 2

150339 2

ST012a 74

151484 74

151954

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : _____			

Picklist Print

Thursday, November 24, 2016 3:36:07 PM

Work Order ID: 153709

153709

Parent Item: D350-591-312

D350-591-312

Parent Item Name: Heli-Access-Step™ RH - High Gear, Long Step, Aerazur Float Compatible

Start Date: 1/2/2017

Required Date: 1/12/2017

Start Qty: 10.00

Required Qty: 10.00

D2856-400 Manufactured No

250 f 324.5359 1.2 12

D2856-400

Abrasion Strip 4" Wide (Per Foot)

DAS
28
289
9-89

Location

Loc Qty

Loc Code

ST418

324.5358853

146265

108.535885

152590

216

154678

cut (2) D2856-400-720 as per dwg

D3065-041

Manufactured No

180 Each 24.0000 1 10

D3065-041

Step Leg Assembly

Location

Loc Qty

Loc Code

WA002

24

151199

15

151922

9

180 Each 103.0000 2 20

D3066-1

Manufactured No

D3066-1

Spacer

Location

Loc Qty

Loc Code

WA003

103

150479

42

151991

40

152346

21

110 Each 135.0000 1 10

D3067-1

Manufactured No

D3067-1

End Plate

Location

Loc Qty

Loc Code

WA003

135

150439

50

150703

1

151980

11

152323

73

B152323

10 C 16-12-22

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval				
Description Work Order Deviation				Disposition				Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____			
Root Cause		FAULT CATEGORY									
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____									
Misidentified ☐	Past Due ☐										

Picklist Print

Thursday, November 24, 2016 3:36:08 PM

Work Order ID: 153709

153709

Parent Item: D350-591-312

D350-591-312

Parent Item Name: Heli-Access-Step™ RH - High Gear, Long Step, Aerazur Float Compatible

Start Date: 1/2/2017

Required Date: 1/12/2017

Start Qty: 10.00

Required Qty: 10.00

D3067-1 Manufactured No 180 Each 135.0000 1 10

D3067-1

End Plate

**

DEC 23 2016

Cpl

Location	Loc Qty	Loc Code
WA003	135	
150439	50	
150703	1	
151980	11	
152323	73	

D3219-1 Manufactured No 110 Each 146.0000 2 20

D3219-1

Plate

**

DEC 23 2016

Cpl

Location	Loc Qty	Loc Code
WA003	146	
149190	12	
151196	4	
151843	130	

D3235-1 Manufactured No 250 Each 164.0000 2 20

D3235-1

Mounting Lug

**

DEC 23 2016

Cpl

DAS
27
9-89

Location	Loc Qty	Loc Code
ST522	64	
146290	2	
147073	62	
ST532A	100	
151920	50	
152214	50	

D3272-1 Manufactured No 110 Each 0.0000 1 10

D3272-1

Step

**

DEC 23 2016

Cpl

B153711 → 10

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		OTHER : _____					

Picklist Print

Thursday, November 24, 2016 3:36:08 PM

Work Order ID: 153709

153709

Parent Item: D350-591-312

D350-591-312

Parent Item Name: Heli-Access-Step™ RH - High Gear, Long Step, Aerazur Float Compatible

Start Date: 1/2/2017

Required Date: 1/12/2017

Start Qty: 10.00

Required Qty: 10.00

D3278-041 Manufactured No

250 Each 16.0000 1 10

D3278-041

Support Assembly

**

DAS
28
9-89

Location

Loc Qty

Loc Code

JAN 16 2017

ST522

16

151201

16

151902

DAS
27
9-89
DAS
6
9-89

MS20600-AD4W4 Purchased No

180 Each 1,031.000 16 160

MS20600-AD4W4

Rivet

**

DC 2016/12/21

Location

Loc Qty

Loc Code

CCK004

669

M135704

669

ST308

158

M133990

158

WA003

204

M135442

204

B135704 160

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER :							

Picklist Print

Thursday, November 24, 2016 3:36:08 PM

Work Order ID: 153709

153709

Parent Item: D350-591-312

D350-591-312

Parent Item Name: Heli-Access-Step™ RH - High Gear, Long Step, Aerazur Float Compatible

Start Date: 1/2/2017

Required Date: 1/12/2017

Start Qty: 10.00

Required Qty: 10.00

MS21042L3

Purchased

No

250

Each

2,236.000

2

20

MS21042L3

Nut

**

Location

Loc Qty

Loc Code

CCK007

600

M136192

600

FP001

100

m135945

100

GA

196

m134360

108

m135135

88

OVER007

600

M136044

600

ST303

740

m135767

240

m135945

500

MS21042L4

Purchased

No

250

Each

2,240.000

8

80

MS21042L4

Nut

**

Location

Loc Qty

Loc Code

FP001

34

m133363

34

GA

200

m135058

200

OVER007

1000

m135979

500

m136182

500

ST303

1006

m135774

6

m135864

1000

DAS 6 9-89
JAN 17 2017 DAS 27 9-89

DA 28 9-89

DAS 6 9-89
JAN 17 2017 DAS 27 9-89

DAS 28 9-89

136295

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date : _____		Step #: _____			QTY Effective : _____				MRB (QSI042) Approval		
Description Work Order Deviation					Disposition					Completed By	
										Lead hand / Supervisor Approval Verification	
										QC / QA Coordinator Approval	
Root Cause					FAULT CATEGORY						
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐						
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐						
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐						
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐						
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐						
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐						
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐						
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐						
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐						
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐						
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____									
Misidentified ☐	Past Due ☐										

Picklist Print

Page 7

Thursday, November 24, 2016 3:36:08 PM

Work Order ID: 153709

153709

Parent Item: D350-591-312

D350-591-312

Parent Item Name: Heli-Access-Step™ RH - High Gear, Long Step, Aerazur Float Compatible

Start Date: 1/2/2017

Required Date: 1/12/2017

Start Qty: 10.00

Required Qty: 10.00

MS21042L5

Purchased

No

250

Each

414.0000

2

20

MS21042L5

Nut

**

DAS
6
9-89

JAN 17 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

25

m127813

25

OVER007

200

m136047

200

ST303

189

m135297

19

m135544

100

m135774

70

20

DAS
28
9-89

NAS1149D0363J

Purchased

No

250

Each

979.0000

4

40

NAS1149D0363J

Washer

**

DAS
6
9-89

JAN 17 2017

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

364

m134055

364

ST263

615

m135864

615

136314

DAS
28
9-89

Thursday, November 24, 2016 3:36:08 PM

Shop Packet Print

Page 7

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date: _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval																																																										
Description Work Order Deviation				Disposition				Completed By																																																									
								Lead hand / Supervisor Approval Verification																																																									
								QC / QA Coordinator Approval																																																									
Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐																																																																

Picklist Print

Thursday, November 24, 2016 3:36:08 PM

Page 8

Work Order ID: 153709

153709

Parent Item: D350-591-312

D350-591-312

Parent Item Name: Heli-Access-Step™ RH - High Gear, Long Step, Aerazur Float Compatible

Start Date: 1/2/2017

Required Date: 1/12/2017

Start Qty: 10.00

Required Qty: 10.00

NAS1149D0463J

Purchased

No

250

Each

3,437.000

16

160

NAS1149D0463.J

Washer

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

80

M134508

13

M135056

67

ST260a

2200

M136044

1600

M136192

600

ST263

1157

M135671

3

M135767

154

M135948

1000

JAN 16 2017

DAS

DAS
28
9-89

NAS1149D0563J

Purchased

No

250

Each

915.0000

4

40

NAS1149D0563.J

Washer

DAS
6
9-89

DAS
27
9-89

Location

Loc Qty

Loc Code

GA

61

m133769

61

ST263

854

m135470

154

m135774

700

JAN 16 2017

DAS
28
9-89

40

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____				MRB (QSI042) Approval 	
Description Work Order Deviation				Disposition					
								Completed By 	
								Lead hand / Supervisor Approval Verification 	
								QC / QA Coordinator Approval 	

Root Cause				FAULT CATEGORY			
Environment ☐		No Re-verification ☐		Pressure/Forced ☐		Temperature/Cure ☐	
Design ☐		Operator ☐		Bending ☐		Set-up ☐	
Doc/Data ☐		Offset/Setup ☐		Centre Not Concentric ☐		BOM/Route ☐	
Equip/Tooling ☐		Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐		Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐		Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐		Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐		Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐		Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐		Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐		Manufacturing Process ☐		OTHER : _____			
Misidentified ☐		Past Due ☐					

DART

DESIGN <i>Q</i>	DRAWN BY <i>JS</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>LE</i>	APPROVED <i>JS</i>	DRAWING NO. D3272	REV. B SHEET 1 OF 3
DATE 07.05.18		TITLE STEP ASSEMBLY, HI LONG	SCALE NTS
A	04.03.01	NEW ISSUE	
B	07.05.18	D3272-1 WAS D2622-120	

RELEASED07.06.04 *JS*

B

QTY -041	QTY -042	PART NUMBER	DESCRIPTION
X		D3272-041	STEP ASSEMBLY, HIGH LONG (LH)
	X	D3272-042	STEP ASSEMBLY, HIGH LONG (RH)
1	1	D3065-041	LEG ASSEMBLY
2	2	D3066-1	SPACER
2	2	D3067-1	END PLATE
2	2	D3219-1	SUPPORT
1	1	D3272-1	STEP
16	16	MS20600AD4W4	RIVET

GENERAL NOTES:

- 1) D3272-041 SHOWN. FOR D3272-042, INSTALL D3219-1 SUPPORT OPPOSITE SIDE
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005.4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 5) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010 MAX.

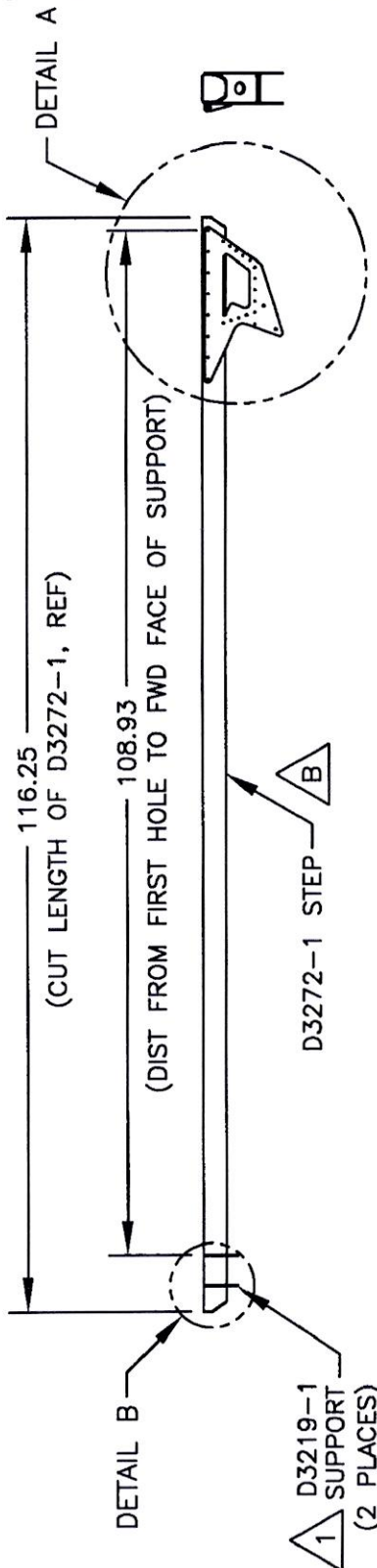
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UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. *153109*
16-11-24

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DART

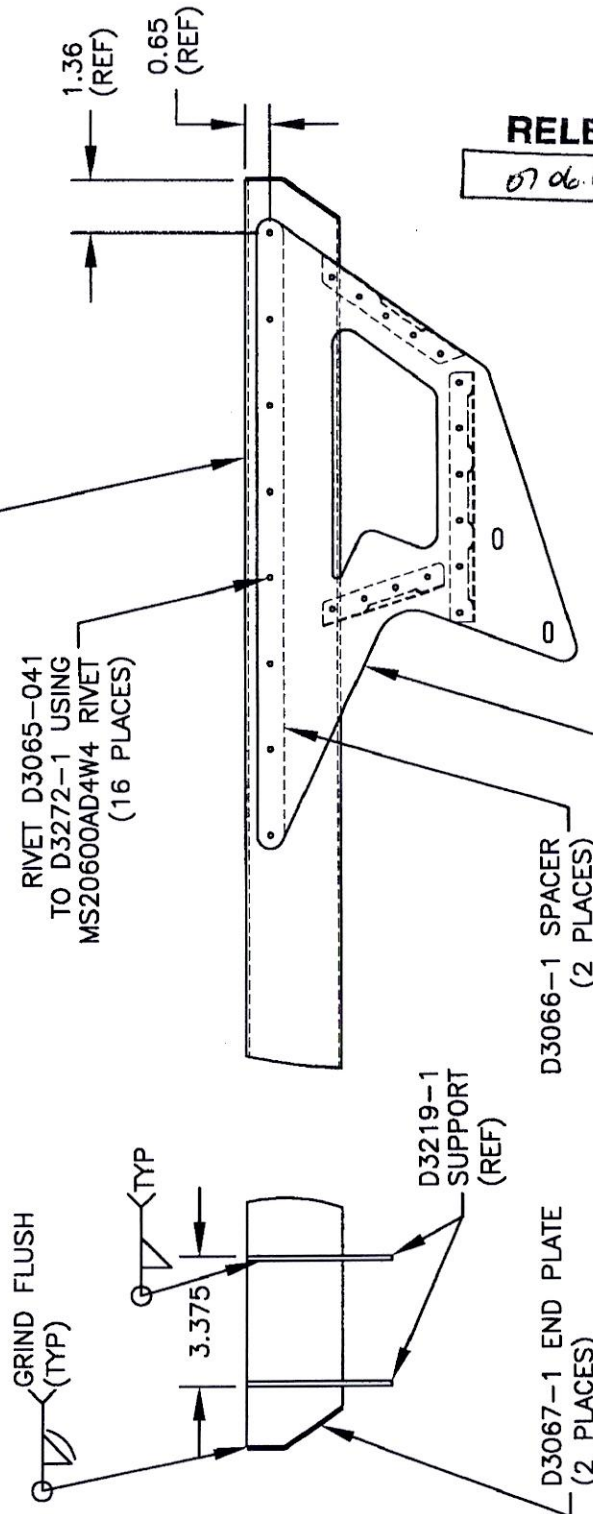
DESIGN 90	DRAWN BY JS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED LE	APPROVED [Signature]	DRAWING NO. D3272	REV. B SHEET 2 OF 3
DATE 07.05.18	TITLE STEP ASSEMBLY, HI LONG		SCALE 1:20



D3272-041 STEP ASSEMBLY (LH, SHOWN)
D3272-042 STEP ASSEMBLY (RH, OPPOSITE)

APPLY BLACK ANTI-SKID
ON TOP SURFACE TO
BOTTOM OF TOP RADIUS

RIVET D3065-041
TO D3272-1 USING
MS20600AD4W4 RIVET
(16 PLACES)

**RELEASED**

07.06.04

DETAIL A
(SCALE 1:5)

DETAIL B
(SCALE 1:5)

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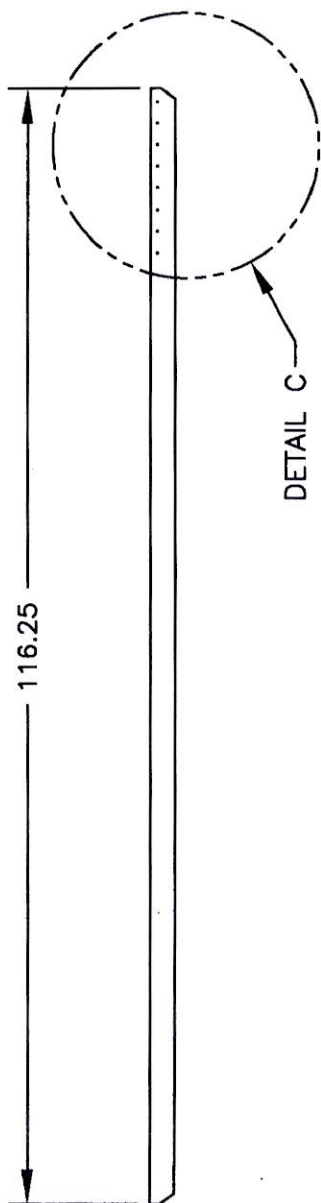
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DESIGN <i>GP</i>	DRAWN BY <i>B</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>LE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3272	REV. B SHEET 3 OF 3
DATE 07.05.18	TITLE STEP ASSEMBLY, HI LONG		SCALE 1:20

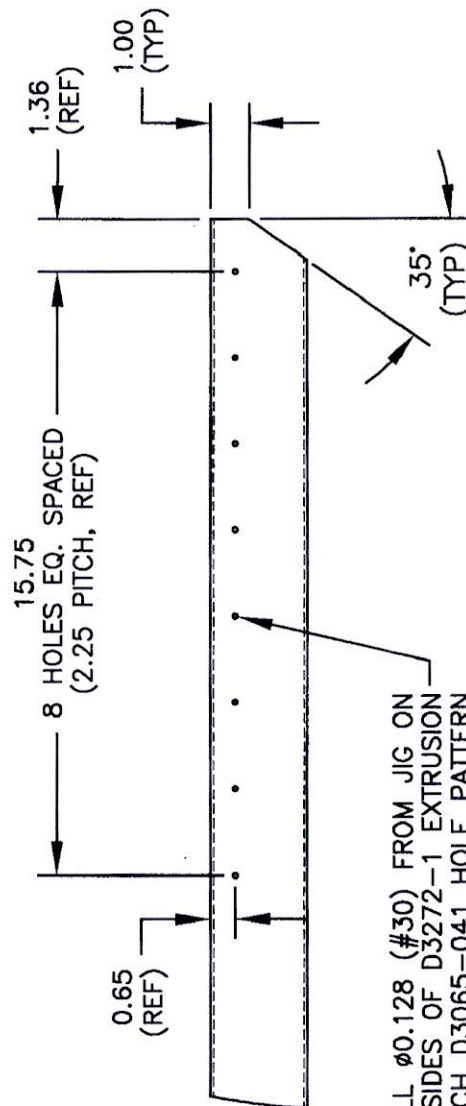
RELEASED

07.06.04 *[Signature]*



DETAIL C

B D3272-1 STEP
(MAKE FROM D2622-120 STEP EXTRUSION)



DRILL $\phi 0.128$ (#30) FROM JIG ON BOTH SIDES OF D3272-1 EXTRUSION TO MATCH D3065-041 HOLE PATTERN

DETAIL C
(SCALE 1:5)

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Qty -213	Qty -214	Qty -215	Qty -216	Qty -311	Qty -312	Part Number	Description
X						D350-591-213	Hel-Access-Step™, Short Step – High Skid, LH
	X					D350-591-214	Hel-Access-Step™, Short Step – High Skid, RH
		X				D350-591-215	Hel-Access-Step™, Short Step – Low Skid, LH
			X			D350-591-216	Hel-Access-Step™, Short Step – Low Skid, RH
				X		D350-591-311	Hel-Access-Step™, Long Step – High Skid, LH
					X	D350-591-312	Hel-Access-Step™, Long Step – High Skid, RH
1						D3078-041	STEP ASSEMBLY (HIGH-SHORT, LH)
	1					D3078-042	STEP ASSEMBLY (HIGH-SHORT, RH)
		1				D3168-041	STEP ASSEMBLY (LOW-SHORT, LH)
			1			D3168-042	STEP ASSEMBLY (LOW-SHORT, RH)
				1		D3272-041	STEP ASSEMBLY (HIGH-LONG, LH)
					1	D3272-042	STEP ASSEMBLY (HIGH-LONG, RH)
2	2	2	2	4	4	D2230-3	MOUNTING LUG
2	2	2	2	2	2	D2618	BUSHING
4	4	4	4			D2732-030	CUSHION
				2	2	D2856-400-720	ABRASION STRIP
2	2	2	2	2	2	D3235-1	MOUNTING LUG
				1	1	D3278-041	SUPPORT ASSEMBLY
2	2	2	2	2	2	AN3-35A	BOLT
				8	8	AN4-13A	BOLT
4	4	4	4			AN4-15A	BOLT
2	2	2	2	2	2	AN5-36A	BOLT
4	4	4	4	4	4	NAS1149D0363J	WASHER (AN960JD10)
12	12	12	12	16	16	NAS1149D0463J	WASHER (AN960JD416)
4	4	4	4	4	4	NAS1149D0563J	WASHER (AN960JD516)
2	2	2	2	2	2	MS21042L3	NUT
6	6	6	6	8	8	MS21042L4	NUT
2	2	2	2	2	2	MS21042L5	NUT
				1	1	*DSI 9410-011	STEP MODIFICATION KIT

*DSI 9410-011 Step Modification Kits are provided with all D350-591-311 and D350-591-312 Steps. This kit is provided as an option for the installer and is therefore **NOT REQUIRED** to complete the installation of the D350-591-311 or D350-591-312 Steps. Refer to Figure 15 for installation of the DSI 9410-011 Kit.